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REMARKS

Claims 1, 7, 10, 11, 18-27, 55, 56, 59, and 60 are pending in the present application. Claims 1, 7, 10, 11, 18-27, 55, 56, 59, and 60 have been rejected. Claim 55 has been cancelled without prejudice or disclaimer. Claims 1 and 60 have been amended. Amendments to claim 60 are clerical in nature. Applicants assert that no new matter has been introduced.

Priority

In the Office Action, the Examiner alleged that in order to obtain a priority filing date from an earlier application for a sequence in the subject application (for example, SEQ ID NO: 1), the earlier application must have the exact sequence listed, without a single nucleotide difference (Office Action of 12/8/05, page 2). Applicants disagree.

The MPEP 706.02(b) states that a rejection based on 35 U.S.C. 102(e) may be overcome by claiming priority to an earlier reference and by establishing that the priority document satisfies the enablement and written description requirements of 35 U.S.C. 112, first paragraph.

To satisfy the written description requirement of 35 U.S.C. 112, ¶ 1, the description must show that the applicant was in possession of the claimed invention at the time of filing. "Possession may be shown in a variety of ways including ...describing distinguishing identifying characteristics" (Guidelines, 66, Fed. Reg. at 1104), "... which provide evidence that the applicant was in possession of the claimed invention, i.e. complete or partial structure..." (id at 1106). The PTO guidelines further point out that based on the language of Eli Lilly 119 F.3d at 1566, which says, "An adequate written description of a DNA requires a precise definition, such as by structure, formula, chemical, name or physical properties." Thus, "there is no basis for... requiring disclosure of complete DNA sequences or limiting DNA claims to only the sequence disclosed" (Guidelines, 66, Fed. Reg. at 1101). Therefore, to obtain an earlier priority date, it is not required that a nucleotide sequence be the identical sequence taught in the earlier application. Applicants demonstrate possession of the currently claimed invention in the priority application by describing a partial structure of the human p-HYDE gene as well as by disclosing its identifying characteristics (hydrophilicity between

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specific residues, differential expression in prostate cancer cell lines, apoptosis induction, tumor suppression).

To satisfy the enablement requirement of 35 U.S.C. 112, ¶ 1, an application must disclose the claimed invention in sufficient detail to enable a person of ordinary skill in the art to make and use the claimed invention. The partial human p-HYDE sequence disclosed in the 09/302,457 application (SEQ ID NO: 5) along with the full length rat p-HYDE sequence (SEQ ID NO: 1), a description of the defining characteristics of the p-HYDE gene, and the knowledge in the art that human and rat genes share a certain degree of homology, would enable a person of ordinary skill in the art to make and use the human p-HYDE nucleotide and protein sequences based on the 09/302,457 specification.

Thus, Applicants have shown that the priority document satisfies the enablement and written description requirements of 35 U.S.C. 112, first paragraph. Applicants therefore request withdrawal of the priority rejection.

Sequences

Applicants herein submit a CRF and paper copy of the sequence listing and a statement that the CRF and paper copy are identical. Additionally, Applicants include an alignment of the coding DNA (SEQ ID NO: 3) and amino acid sequence (SEQ ID NO: 7) to clearly show support and the lack of new matter (Appendix 1). Applicants request withdrawal of the objections to the specification in light of the submission of the CRF as described above.

35 U.S.C. 112 1st paragraph rejection

Applicants thank the Examiner for withdrawing objections to the specification and to claims and for withdrawing rejections to claims in light of previous amendments and cancellations.

Claims 1, 7, 10, 11, 18-27, 55, 56, 59, and 60 have been rejected as allegedly failing to comply with the written description requirement. The Examiner alleged that the sequence of the full length human p-HYDE protein has not been disclosed and could not be

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predicted by those of skill in the art. Applicants disagree. The partial human p-HYDE sequence disclosed in SEQ ID NO: 1 along with the full length rat p-HYDE sequence disclosed in SEQ ID NO: 3 of the instant invention, together with the knowledge in the art that human and rat genes with similar functions share a high degree of homology and a description of the defining characteristics of the p-HYDE gene (differential expression in prostate cancer cell lines, apoptosis induction, tumor suppression) would enable a person of ordinary skill in the art, using tools available in the Art at the time of the invention (bio-informatic tools, gene expression tools, functional assays) to make and use the human p-HYDE gene.

The Examiner further alleged that claims are drawn to a genus of different sequences that comprise the human p-HYDE of SEQ ID NO: 1 without describing a function, and that a description of at least one species and the common characteristics of the claimed molecules are required to support the genus. Applicants submit that the claims are drawn to a single species (human p-HYDE nt and aa sequence) as opposed to a genus such as any p-HYDE gene.

Applicants note that the Examiner agrees that the claims are enabled.

35 U.S.C. 101 rejection

The Examiner rejected claims 1, 7, 10, 11, 18-27, 55, 56, 59, and 60 because they allegedly lack patentable utility. The Examiner agrees that the p-HYDE gene has patentable utility, but disputes that the disclosed portion of the human p-HYDE gene will necessarily have the same function as the full-length gene. However, Applicants are not claiming a domain of the human p-HYDE protein, but rather are claiming the full-length gene, which is a rat p-HYDE homolog and would be credibly associated with encoding a protein with a similar function as the rat p-HYDE protein, especially in light of the evidence that they are similarly regulated in prostate cancer cells. Therefore, Applicants request withdrawal of the rejection.

35 U.S.C. 102 rejection

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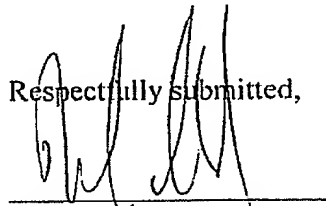
In the Office Action, the Examiner rejected claim 55 as allegedly being anticipated by Ni et al (USPAP 2002/0064818). Applicants disagree and maintain that the instant invention should be awarded the priority date of April 29, 1999, as described above, which antedates the September 3, 1999 priority date of Ni et al. Ni et al. is therefore not an appropriate anticipatory reference for the present invention. However, in order to expedite prosecution, Applicants have cancelled claim 55. Accordingly, the rejection is moot.

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,



Mark S. Cohen
Attorney/Agent for Applicant(s)
Registration No. 42,425

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Pearl Cohen Zedek Latzer, LLP
1500 Broadway
12th Floor
New York, New York 10036
Tel: (646) 878-0800
Fax: (646) 878-0801

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Appendix I

Comparison of nucleotides from SEQ ID NO: 3 (lower row) and amino acids from SEQ ID NO:7 (upper rows)

M	S	G	E	M	D	K	P	L	I	S	R	R	L	V	D	S	D	18
ATG	TCC	GGG	GAG	ATG	GAC	AAA	CCG	CTC	ATC	AGT	CGC	CGC	TTG	GTG	GAC	AGT	GAT	54
G	S	L	A	E	V	P	K	E	A	P	K	V	G	I	L	G	S	36
GGC	AGT	CTG	GCT	GAG	GTC	CCC	AAG	GAG	GCT	CCC	AAA	GTG	GGC	ATC	CTG	GGC	AGC	108
G	D	F	A	R	S	L	A	T	R	L	V	G	S	G	F	F	V	54
GGG	GAT	TTT	GCC	CGG	TCC	CTG	GCC	ACA	CGC	CTG	GTG	GGC	TCT	GGC	TTT	TTT	GTG	162
V	V	G	S	R	N	P	K	R	T	A	G	L	F	P	S	L	A	72
GTG	GTG	GGA	AGC	CGT	AAC	CCC	AAA	CGC	ACT	GCC	GGC	CTC	TTC	CCC	TCC	TTA	GCC	216
Q	V	T	F	Q	E	E	A	V	S	S	P	E	V	I	F	V	A	90
CAA	GTG	ACT	TTC	CAG	GAG	GAG	GCC	GTG	AGC	TCT	CCA	GAG	GTC	ATC	TTT	GTG	GCC	270
V	F	R	E	H	Y	S	S	L	C	S	L	A	D	Q	L	A	G	108
GTG	TTC	CGG	GAG	CAC	TAC	TCC	TCA	CTG	TGC	AGT	CTT	GCT	GAC	CAG	TTG	GCT	GGC	324
K	I	L	V	D	V	S	N	P	T	E	K	E	R	L	Q	H	R	126
AAG	ATC	CTA	GTG	GAT	GTA	AGC	AAC	CCC	ACG	GAG	AAG	GAG	CGT	CTT	CAG	CAC	CGC	378
Q	S	N	A	E	Y	L	A	S	L	F	P	A	C	T	V	V	K	144
CAG	TCG	AAC	GCC	GAG	TAC	CTG	GCC	TCC	CTC	TTC	CCT	GCC	TGC	ACT	GTG	GTC	AAG	432
A	F	N	V	I	S	A	W	A	L	Q	A	G	P	R	D	G	N	162
GCC	TTC	AAC	GTC	ATC	TCT	GCA	TGG	GCC	CTA	CAG	GCT	GGC	CCA	AGG	GAT	GGG	AAC	486
R	Q	V	L	I	C	G	D	Q	L	E	A	K	H	T	V	S	E	180
AGG	CAG	GTG	CTC	ATC	TGC	GGT	GAC	CAG	CTG	GAA	GCC	AAG	CAC	ACC	GTC	TCA	GAG	540
M	A	R	A	M	G	F	T	P	L	D	M	G	S	L	A	S	A	198
ATG	GCG	CGC	GCC	ATG	GGT	TTC	ACC	CCA	CTG	GAC	ATG	GGA	TCC	CTG	GCC	TCA	GCG	594
R	E	V	E	A	I	P	L	R	L	L	P	S	W	K	V	P	T	216
AGG	GAG	GTA	GAG	GCC	ATA	CCC	CTG	CGC	CTC	CTT	CCA	TCC	IGG	AAG	GTG	CCC	ACC	648
L	L	A	L	G	L	S	T	Q	S	Y	A	Y	N	F	I	R	D	234
CTC	CTG	GCC	CTG	GGG	CTA	AGC	ACA	CAA	AGC	TAT	GCC	TAC	AAC	TTC	ATC	CGG	GAC	702
V	L	Q	P	Y	I	R	K	D	E	N	K	F	Y	K	M	P	L	252
GTT	CTA	CAG	CCG	TAC	ATC	CGG	AAA	GAT	GAG	AAC	AAG	TTC	TAC	AAG	ATG	CCC	CTG	756
S	V	V	N	T	T	I	P	C	V	A	Y	V	L	L	S	L	V	270
TCT	GTG	GTC	AAC	ACC	ACG	ATA	CCC	TGT	GTG	GCT	TAC	GTG	CTG	CTG	TCC	CTG	GTT	810
Y	L	P	G	V	L	A	A	A	L	Q	L	R	R	G	T	K	Y	288
TAC	CTG	CCT	GGT	GTG	CTG	GCA	GCT	GCC	CTT	CAG	CTG	AGG	AGG	GGG	ACC	AAG	TAC	864
Q	R	F	P	D	W	L	D	H	W	L	Q	H	R	K	Q	I	G	306
CAG	CGC	TTC	CCA	GAC	TGG	CTG	GAC	CAT	TGG	CTG	CAG	CAC	CGC	AAG	CAG	ATC	GGG	918
L	L	S	F	F	F	A	M	L	H	A	L	Y	S	F	C	L	P	324
CTA	CTC	AGC	TTT	TTT	TTT	GCC	ATG	CTG	CAC	GCT	CTC	TAC	AGC	TTC	TGC	CTG	CCG	972
L	R	R	S	H	R	Y	D	L	V	N	L	A	V	K	Q	V	L	342
CTG	CGC	CGC	TCC	CAC	CGC	TAT	GAT	CTG	GTC	AAC	CTG	GCT	GTG	AAG	CAG	GTC	CTG	1026

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